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1. The Krupp-Grusonwerke, Magdeburg, employs 8,000 workers and is divided into two main departmental divisions. Hauptabteilung I deals entirely with ore-processing plant equipment. Hauptabteilung II is concerned with the delivery of 32 rotary cement furnaces. Each division also maintains its own Construction and Research Office.

Hauptabteilung I

2. Apart from receiving orders for ore-processing plant equipment, such as ore crushers, etc., this division of Krupp has been commissioned by the Babelsberg branch of the Soviet Ministry for Non-Ferrous Metals to engage in research into and the large-scale development of the flotation process for the winning of metal in ore plants.

3. The staff of the Research Office is as follows:

a. Russians: The director is Col. Prof. Saprudski (fnu) 50X1-HUM
There are also 12 subordinates.

b. Germans: The director is Dr. Quittkatt (fnu) He is occupied mainly with organization and liaison.
The head of the laboratory is Dr. Finn (fnu) He is an experienced metallurgical chemist who has been employed in Abyssinia, the Katanga area of the Belgian Congo, the United States, and the mines at Bor, Yugoslavia. There are also 80 subordinates who usually work in two shifts.

4. At the beginning of 1947, Obering. Metscher (fnu), an independent specialist in measuring and automatic regulator devices and one Feldner (fnu), of Siemens und Halske, Magdeburg, were called in by Dr. Finn to develop the flotation process to its fullest.* The problems of this process were solved by the middle of 1948. 50X1-HUM

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50X1-HUM

5. The process is carried out in the following manner:

   a. Rough dry crushing by means of a very large ore crusher, which can be taken apart and loaded on five railway cars. One such crusher can break up nearly 1 cubic meter of the hardest stone in one operation.

   b. Medium dry crushing by means of a Symons crusher.

   c. Very fine pulverization, after the addition of 5-6 times as much water (by weight) by so-called wet tube mills. The ore is crushed to grains of 0.02 mm. Analysis of the pulverized ore shows a yield of 70% of the 0.02mm grains, while the remaining 30% ranges to a maximum of 0.20 mm. The larger grains are reground.

   d. The liquid, which is called "Erztrübe", is run through upright cylindrical containers which are equipped with agitators, and chemicals such as cyanogen compounds and pine oil are added by automatic dosing equipment. These chemicals envelop the metallic particles in foam and drive them to the surface where they are skimmed off by automatic brushes. The stones sink to the bottom and are removed from time to time. When large containers (Beruhigungsbehälter) are used the stones are allowed to settle completely so that the water, which contains costly chemicals, can be used again in the agitator. The loss of water is about 50%. The exploitation is between 99 and 99.4%. The experiments described above were carried out with copper ore from Bor.

6. Krupp makes the complete ore-processing plant with the assistance of a large number of sub-contractors. Three complete plants had been delivered as of March 1949 and were to be set up in the Ural Mountains.* It is reported that 12 German construction engineers were sent to the USSR in April 1948 on instructions from the Soviet Ministry for Non-Ferrous Metals to lay the foundations for the plants.

Hauptabteilung II

7. As of February 1949, this division was working on a contract for the delivery of 32 rotary cement furnaces ** which were to be erected in pairs in different localities in the USSR.

8. The Construction Bureau for this department consists of 150 men. Its director is Dipl. Ing. Scheidt [redacted] The names of the Russian personnel are not known. They act merely in a supervisory capacity, seeing to it that articles are delivered on time and that raw materials are obtained. They are not active in the construction work. 50X1-HUM

9. The rotary furnaces are 150 meters long and have a diameter of four and one-half meters. They lie horizontally and are driven by four electric motors under Ward-Leonard control at the rate of from four to six revolutions per minute.

[redacted] Comment. The exact destination of the plants in the USSR is not known at Krupp. The cement factories were all sent to destinations east of Moscow. 50X1-HUM

[redacted] Comment. Polysius-Dessau has delivered only five of its cement factories. The furnaces here are only 120 meters long but are similar in all other respects to those built at Krupp. The factory employs 3,000 men, as well as 80 in its constructional office under Kuster (fnu). 50X1-HUM

10. Difficulties in providing raw materials have delayed the program considerably, and 23 mm boiler plates have been particularly difficult to obtain. The electric motors could not be delivered by any German firm, since both the Siemens and AEG plants were dismantled by the Russians in 1945. The motors were therefore bought [redacted] and paid for in sugar* from the Eastern Zone. The motors were delivered directly to the destination in the USSR. 50X1-HUM

11. The Constructional Office is given a considerable amount of extra work because of frequent changes necessitated by the inability of the Russians to deliver materials of the required specifications. Calculations then have to be recast according to the material actually provided, another factor which causes some delay. As a result, only four of the thirty-two furnaces had been delivered in late March.

50X1-HUM

[redacted] Comment: The sugar was shipped via Stettin. Nearly all of the trucks in the Magdeburg area were requisitioned for this purpose. The Russians replied to German protests against these deliveries with a comment to the effect that since the Germans could not provide the motors, they would have to provide the sugar.